

COMPLETE LISTING OF CLAIMS
IN ASCENDING ORDER WITH STATUS INDICATOR

Claims 1-6 (canceled)

Claim 7 (previously presented): In a system comprising a network and at least one mobile station (MS) for enabling communications with the at least one MS, a method for rescuing one or more MSs having connections with the network that have become potentially failing connections, comprising:

identifying the one or more MSs having potentially failing connections;

transmitting a forward multiple-access rescue channel (RC-MA) from the network, the RC-MA including a rescue channel multiple-access synchronization message (RC-MAS) comprising MS identification and handoff information specific to each of the one or more MSs having potentially failing connections and a rescue channel handoff message (RC-HO) comprising a new active set specific to each of the one or more MSs having potentially failing connections for enabling the MSs having potentially failing connections to continue the connection;

receiving the RC-MA at the one or more MSs having potentially failing connections;

handing off the one or more MSs having potentially failing connections in accordance with the MS identification and handoff information; and

identifying one or more sectors that were receiving a particular MS having a potentially failing connection with a higher signal strength than other sectors, and specifying those one or more sectors in the new active set specific to that particular MS.

Claims 8-10 (canceled)

Claim 11 (previously presented): In a system comprising a network and at least one mobile station (MS) for enabling communications with the at least one MS, a method for rescuing one or more MSs having connections with the network that have become potentially failing connections, comprising:

identifying the one or more MSs having potentially failing connections;

transmitting a forward multiple-access rescue channel (RC-MA) from the network, the RC-MA including a rescue channel multiple-access synchronization message (RC-MAS) comprising MS identification and handoff information specific to each of the one or more MSs having potentially failing connections;

receiving the RC-MA from multiple sectors simultaneously at the one or more MSs having potentially failing connections; and

handing off the one or more MSs having potentially failing connections in accordance with the MS identification and handoff information.

Claims 12-19 (canceled)

Claim 20 (previously presented): In a system comprising a network and at least one mobile station (MS) for enabling communications with the at least one MS, one or more MSs capable of receiving a forward multiple-access rescue channel (RC-MA) and continuing connections that have become potentially failing connections, a method for assisting in rescuing one or more MSs having potentially failing connections, comprising:

identifying the one or more MSs having potentially failing connections;

transmitting a forward multiple-access rescue channel (RC-MA) from the network, the RC-MA including a rescue channel multiple-access synchronization message (RC-MAS) comprising MS identification and handoff information specific to each of the one or more MSs having potentially failing connections and a rescue channel handoff message (RC-HO) comprising a new active set specific to each of the one or more MSs having potentially failing connections for enabling the MSs having potentially failing connections to continue the connections;

monitoring a reverse channel specific to each of the one or more MSs having potentially failing connections in accordance with the MS identification and handoff information;

transmitting one or more forward channels from the network, each forward channel in accordance with the MS identification and handoff information and specific to each of the one or more MSs having potentially failing connections that has received the RC-MA; and

identifying one or more sectors that were receiving a particular MS having a potentially failing connection with a higher signal strength than other sectors, and specifying those one or more sectors in the new active set specific to that particular MS.

Claims 21-23 (canceled)

Claim 24 (previously presented): In a system comprising a network and at least one mobile station (MS) for enabling communications with the at least one MS, one or more MSs capable of receiving a forward multiple-access rescue channel (RC-MA) and continuing connections that have become potentially failing connections, a method for assisting in rescuing one or more MSs having potentially failing connections, comprising:

identifying the one or more MSs having potentially failing connections;

transmitting a forward multiple-access rescue channel (RC-MA) from the network from multiple sectors simultaneously, the RC-MA including a rescue channel multiple-access synchronization message (RC-MAS) comprising MS identification and handoff information specific to each of the one or more MSs having potentially failing connections;

monitoring a reverse channel specific to each of the one or more MSs having potentially failing connections in accordance with the MS identification and handoff information; and

transmitting one or more forward channels from the network, each forward channel in accordance with the MS identification and handoff information and specific to each of the one or more MSs having potentially failing connections that has received the RC-MA.

Claims 25-30 (canceled)

Claim 31 (previously presented): In a system comprising a network and at least one mobile station (MS) for enabling communications with the at least one MS, the network capable of transmitting a forward multiple-access rescue channel (RC-MA) including a rescue channel multiple-access synchronization message (RC-MAS) comprising MS identification and handoff information specific to each of one or more MSs having connections with the network that have become potentially failing connections, a method for assisting in rescuing a MS having a potentially failing connection, comprising:

- receiving the RC-MA from multiple sectors simultaneously at the MS having the potentially failing connection; and

- transmitting a reverse channel specific to the MS having the potentially failing connection in accordance with the MS identification and handoff information.

Claims 32-34 (canceled)

Claim 35 (previously presented): In a system comprising a network and at least one mobile station (MS) for enabling communications with the at least one MS, a method for handing off one or more MSs having a connection with the network prior to detecting a failing connection, comprising:

- identifying the one or more MSs in need of handoff;

- transmitting a forward multiple-access handoff channel (HC-MA) from the network, the HC-MA including a handoff channel multiple-access synchronization message (HC-MAS) comprising MS identification and handoff information specific to each of the one or more MSs in need of handoff;

- receiving the HC-MA from multiple sectors simultaneously at one or more MSs in need of handoff; and

- handing off the one or more MSs in need of handoff in accordance with the MS identification and handoff information.

Claim 36 (canceled)

Claim 37 (previously presented): In a system comprising a network and at least one mobile station (MS) having connections with the network for enabling communications with the at least one MS, the one or more MSs capable of receiving a forward multiple-access handoff channel (HC-MA) and continuing the connections, a method for assisting in handing off the one or more MSs prior to detecting potentially failing connections, comprising:

identifying the one or more MSs in need of handoff;

transmitting the HC-MA from the network from multiple sectors simultaneously, the HC-MA including a handoff channel multiple-access synchronization message (HC-MAS) comprising MS identification and handoff information specific to each of the one or more MSs in need of handoff;

monitoring a reverse channel specific to each of the one or more MSs in need of handoff in accordance with the MS identification and handoff information; and

transmitting one or more forward channels from the network, each forward channel in accordance with the MS identification and handoff information and specific to each of the one or more MSs in need of handoff that has received the HC-MA.

Claims 38-43 (canceled)

Claim 44 (previously presented): A system for enabling communications between a network and at least one mobile station (MS) and for rescuing one or more MSs having connections with the network that have become potentially failing connections, the system comprising:

a network having a network processor programmed for

- identifying the one or more MSs having potentially failing connections,
- transmitting a forward multiple-access rescue channel (RC-MA) from the network, the RC-MA including a rescue channel multiple-access synchronization message (RC-MAS) comprising MS identification and handoff information specific to each of the one or more MSs having potentially failing connections and a rescue channel handoff message (RC-HO) comprising a new active set specific to each of the one or more MSs having potentially failing connections for enabling the MSs having potentially failing connections to continue the connection,
- monitoring a reverse channel specific to each of the one or more MSs having potentially failing connections in accordance with the MS identification and handoff information,
- transmitting one or more forward channels from the network, each forward channel in accordance with the MS identification and handoff information and specific to each of the one or more MSs having potentially failing connections that has received the RC-MA, and
- identifying one or more sectors that were receiving a particular MS having a potentially failing connection with a higher signal strength than other sectors, and specifying those one or more sectors in the new active set specific to that particular MS; and

one or more MSs, each MS having a MS processor programmed for receiving the RC-MA and transmitting a reverse channel in accordance with the MS identification and handoff information if that MS has potentially failing connection.

Claims 45-47 (canceled)

Claim 48 (previously presented): A system for enabling communications between a network and at least one mobile station (MS) and for rescuing one or more MSs having connections with the network that have become potentially failing connections, the system comprising:

a network having a network processor programmed for

identifying the one or more MSs having potentially failing connections,

transmitting a forward multiple-access rescue channel (RC-MA) from the network, the RC-MA including a rescue channel multiple-access synchronization message (RC-MAS) comprising MS identification and handoff information specific to each of the one or more MSs having potentially failing connections,

monitoring a reverse channel specific to each of the one or more MSs having potentially failing connections in accordance with the MS identification and handoff information, and

transmitting one or more forward channels from the network, each forward channel in accordance with the MS identification and handoff information and specific to each of the one or more MSs having potentially failing connections that has received the RC-MA; and

one or more MSs, each MS having a MS processor programmed for receiving the RC-MA from multiple sectors simultaneously and transmitting a reverse channel in accordance with the MS identification and handoff information if that MS has potentially failing connection.

Claim 49 (previously presented): A system for enabling communications between a network and at least one mobile station (MS) and for rescuing one or more MSs having connections with the network that have become potentially failing connections, the system comprising:

- a network having a network processor programmed for
 - identifying the one or more MSs having potentially failing connections,
 - transmitting a forward multiple-access rescue channel (RC-MA) from the network from multiple sectors simultaneously, the RC-MA including a rescue channel multiple-access synchronization message (RC-MAS) comprising MS identification and handoff information specific to each of the one or more MSs having potentially failing connections,
 - monitoring a reverse channel specific to each of the one or more MSs having potentially failing connections in accordance with the MS identification and handoff information, and
 - transmitting one or more forward channels from the network, each forward channel in accordance with the MS identification and handoff information and specific to each of the one or more MSs having potentially failing connections that has received the RC-MA; and
 - one or more MSs, each MS having a MS processor programmed for receiving the RC-MA and transmitting a reverse channel in accordance with the MS identification and handoff information if that MS has potentially failing connection.

Claims 50-57 (canceled)

Claim 58 (previously presented): A system for enabling communications between a network and at least one mobile station (MS) and for assisting in rescuing one or more MSs having potentially failing connections, the one or more MSs capable of receiving a forward multiple-access rescue channel (RC-MA) and continuing connections that have become potentially failing connections, the system comprising:

a network including a network processor programmed for
identifying the one or more MSs having potentially failing connections,
transmitting a forward multiple-access rescue channel (RC-MA), the RC-MA
including a rescue channel multiple-access synchronization message (RC-MAS) comprising MS
identification and handoff information specific to each of the one or more MSs having potentially
failing connections and a rescue channel handoff message (RC-HO) comprising a new active set
specific to each of the one or more MSs having potentially failing connections for enabling the MSs
having potentially failing connections to continue the connections,

monitoring a reverse channel specific to each of the one or more MSs having
potentially failing connections in accordance with the MS identification and handoff information,

transmitting one or more forward channels from the network, each forward
channel in accordance with the MS identification and handoff information and specific to each of
the one or more MSs having potentially failing connections that has received the RC-MA, and

identifying one or more sectors that were receiving a particular MS having a
potentially failing connection with a higher signal strength than other sectors, and specifying those
one or more sectors in the new active set specific to that particular MS.

Claims 59-61 (canceled)

Claim 62 (previously presented): A system for enabling communications between a network and at least one mobile station (MS) and for assisting in rescuing one or more MSs having potentially failing connections, the one or more MSs capable of receiving a forward multiple-access rescue channel (RC-MA) and continuing connections that have become potentially failing connections, the system comprising:

- a network including a network processor programmed for
 - identifying the one or more MSs having potentially failing connections,
 - transmitting a forward multiple-access rescue channel (RC-MA) from multiple sectors simultaneously, the RC-MA including a rescue channel multiple-access synchronization message (RC-MAS) comprising MS identification and handoff information specific to each of the one or more MSs having potentially failing connections,
 - monitoring a reverse channel specific to each of the one or more MSs having potentially failing connections in accordance with the MS identification and handoff information, and
 - transmitting one or more forward channels from the network, each forward channel in accordance with the MS identification and handoff information and specific to each of the one or more MSs having potentially failing connections that has received the RC-MA.

Claims 63-68 (canceled)

Claim 69 (previously presented): A mobile station (MS) for communicating with a network and for assisting in rescuing the MS when the MS has a connection with the network that has become a potentially failing connection, the network capable of transmitting a forward multiple-access rescue channel (RC-MA) including a rescue channel multiple-access synchronization message (RC-MAS) comprising MS identification and handoff information specific to each of one or more MSs having connections with the network that have become potentially failing connections, the MS comprising:

- a MS processor programmed for
 - receiving the RC-MA from multiple sectors simultaneously at the MS if the MS has a potentially failing connection, and
 - transmitting a reverse channel in accordance with the MS identification and handoff information if the MS has a potentially failing connection.

Claims 70-72 (canceled) .

Claim 73 (previously presented): A system for enabling communications between a network and at least one mobile station (MS) and for handing off one or more MSs having a connection with the network prior to detecting a failing connection, comprising:

- a network including a network processor programmed for
 - identifying the one or more MSs in need of handoff,
 - transmitting a forward multiple-access handoff channel (HC-MA) from the network, the HC-MA including a handoff channel multiple-access synchronization message (HC-MAS) comprising MS identification and handoff information specific to each of the one or more MSs in need of handoff,
 - monitoring a reverse channel specific to each of the one or more MSs in need of handoff in accordance with the MS identification and handoff information, and
 - transmitting one or more forward channels from the network, each forward channel in accordance with the MS identification and handoff information and specific to each of the one or more MSs in need of handoff that has received the HC-MA; and
- a MS including a MS processor programmed for
 - receiving the HC-MA from multiple sectors simultaneously at one or more MSs in need of handoff, and
 - transmitting a reverse channel from the one or more MSs in need of handoff in accordance with the MS identification and handoff information.

Claim 74 (canceled)

Claim 75 (previously presented): A system for enabling connections between a network and at least one mobile station (MS) and assisting in handing off one or more MSs prior to detecting potentially failing connections, the one or more MSs capable of receiving a forward multiple-access handoff channel (HC-MA) and continuing the connections, the system comprising:

a network including a network processor programmed for

identifying one or more MSs in need of handoff,

transmitting the HC-MA from the network from multiple sectors

simultaneously, the HC-MA including a handoff channel multiple-access synchronization message (HC-MAS) comprising MS identification and handoff information specific to each of the one or more MSs in need of handoff,

monitoring a reverse channel specific to each of the one or more MSs in need of handoff in accordance with the MS identification and handoff information, and

transmitting one or more forward channels from the network, each forward channel in accordance with the MS identification and handoff information and specific to each of the one or more MSs in need of handoff that has received the HC-MA.